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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,301	12/10/2001	Cong Q. Khieu	004-6390	3139
42714	7590	05/31/2006		
ZAGORIN O'BRIEN GRAHAM LLP (004) 7600B NORTH CAPITAL OF TEXAS HIGHWAY SUITE 350 AUSTIN, TX 78731-1191			EXAMINER CORRIELUS, JEAN B	
			ART UNIT 2611	PAPER NUMBER

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/014,301	<b>Applicant(s)</b> KHIEU ET AL.	
	<b>Examiner</b> Jean B. Corrielus	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-31 have been considered with the following effects: after further consideration, a new ground of rejection of claims 1, 2, 4, 5, 12-16, 22-23, 25 and 26 in view of Dow is set forth below because the storage device and the delay element are believed to be inherently provided by Dow see rejection below. Any other point of argument is moot in view of such new ground (s) of rejection.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4, 5, 12-16, 22-23, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Dow US patent No. 5,306,967.

As per claim 1, Dow discloses a method and apparatus (figs. 1 and 2) comprising: transmitting (means for transmitting) a first digital signal along the first signal path see elements 42 and 80 and col. 4, lines 10-17; transmitting a second signal along a second path see elements 41 and 80 and col. 4, lines 10-17 wherein the

Art Unit: 2611

second digital signal has a value "0" opposite a value of the first digital signal "1" see fig. 1, elements 41 and 42 towards the left side of the figure; storing (means for storing) the second signal in a buffer along the second signal path note that transmission units 80 include signals to be transmitted transmit signals to circuit 85, because the signal is transmitted one bit at the time see fig. 1 for instance, circuit 80 has to include a buffer or some sort of storage device to temporary store the data prior to transmission. Hence a memory device is inherent in Dow.; inverting (means for inverting the value of the first digital signal along the first path see 52 and 100 and col. 4, lines 26-31; and re-inverting (means for re-inverting) the first digital signal along the first signal path at a final destination of the first signal path see elements 52 and 100.

As per claim 2, note that circuit elements 100 and 101 includes in inherent time delay to process to receive and invert the signal hence "a time delay circuit is inherently taught by Dow.

As per claim 4, note at col. 2, lines 44-45 that Dow refers to the inverters a repeaters hence 100 includes a first repeater and 101 includes a second repeater.

As per claim 5, the first repeater (100 "center") repeats the signal after the first signal is inverted see 100 "first" and the second repeater (101 "first") repeats the second signal after the second signal is stored see device 80.

As per claim 12, see claim 1,

As per claim 13, see claim 2.

As per claim 14, the inverter 100 is placed opposite (i. e. placed in second signal path) the buffer.

As per claim 15, see claim 4.

As per claim 16, see claim 5.

As per claim 22 see claim 1.

As per claim 23, see claim 2.

As per claim 25, see claim 4.

As per claim 26, see claim 5.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 6-11, 17-21, 24 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dow in view of Lin.

As per claim 3, as applied to claim 1 above, Dow discloses every feature of the claimed invention but does not explicitly teach the further limitation of inverting the first signal while storing the second signal. However, as evidenced by Lin it is well known in the art to invert a first signal while storing a second signal see fig. 1, elements B12 and B22, fig. 3 element S12 and col. 3 lines 40-52. Given that fact, it would have been obvious to one skilled in the art to modify Dow inverting the first signal while storing the second signal as disclosed by Lin in order to ensure that signal values in path 1 so as to prevent and minimize signal interference between the two signal paths.

As per claim 6, Dow discloses every feature of the claimed invention but does

Art Unit: 2611

not explicitly teach the further limitation of "the two signals have the same value for at least one half the first signal path". At col. 4, lines 11-12, Lin teaches the further limitation of "the two signals have the same value for at least one half the first signal path". Given that, it would have been obvious to one skill in the art to modify Dow in such a way as to ensure that the two signals have the same value for at least one half the first signal path" the motivation to do so would have been the same as provided above with respect to claim 3.

As per claims 7-11 and 17-21 and 27-31, see claim 6.


As per claim 24, see claim 3.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B. Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jean B Cornelius  
Primary Examiner  
Art Unit 2611

5-27-06